

PATENT COOPERATION TREATY

From the:
INTERNATIONAL SEARCHING AUTHORITY

REC'D 15 MAR 2005

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To:

Cullen & Co
GPO Box 1074
BRISBANE QLD 4001

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing (day/month/year) 08 MAR 2005	
Applicant's or agent's file reference 030483PC	FOR FURTHER ACTION See paragraph 2 below
International application No. PCT/AU2004/001821	International filing date (day/month/year) 23 December 2004
Priority date (day/month/year) 8 January 2004	
International Patent Classification (IPC) or both national classification and IPC Int. Cl. ⁷ F01N 3/038, 3/10, 3/20; B01D 53/94	
Applicant SAVE THE WORLD AIR, INC et al	

1. This opinion contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the opinion |
| <input type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input checked="" type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input checked="" type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input checked="" type="checkbox"/> | Box No. VIII | Certain observations on the international application |

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer D.R. LUM Telephone No. (02) 6283 2544
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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

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Box No. I Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
☐ table(s) related to the sequence listing

b. format of material

- ☐ in written format
☐ in computer readable form

c. time of filing/furnishing

- ☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

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Box No. IV Lack of unity of invention

1. ☐ In response to the invitation (Form PCT/ISA/206) to pay additional fees the applicant has:
- ☐ paid additional fees
 - ☐ paid additional fees under protest
 - ☐ not paid additional fees
2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is
- ☐ complied with
 - ☒ not complied with for the following reasons:

The International Preliminary Report on Patentability (Chapter II) has been drawn up in respect of the entire international application but the International Preliminary Examining Authority is of the opinion that the application does not appear to comply with the requirements of unity of invention as set forth in the PCT regulations (Article 34(3), Rule 68(1) PCT).

The separate groups of invention are:

1. Claims 1-10 are directed to a device to improve the working of an inline catalytic converter. It is considered that the device comprises a particular profile comprising a plurality of recesses or cavities to facilitate improve heat absorption comprises a first "special technical feature".
2. Claims 1, 11-16 are directed to a device to improve the working of an inline catalytic converter. It is considered that device comprising a valve which is operable between an open and a closed or partially closed position and located downstream from the catalytic converter to increase the resident time of the exhaust gas around the catalytic converter comprises a second "special technical feature".

These groups are not so linked as to form a single general inventive concept, that is, they do not have any common inventive features, which define a contribution over the prior art. The common concept linking together these groups of claims is the general broad feature of claim 1. However this concept is not novel in the light of all the documents cited in the International Search Report. Therefore these claims lack unity a posteriori.

4. Consequently, this opinion has been established in respect of the following parts of the international application:

- ☒ all parts
- ☐ the parts relating to claims Nos.

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 2-10	YES
	Claims 1, 11-16	NO
Inventive step (IS)	Claims 2-10	YES
	Claims 1, 11-16	NO
Industrial applicability (IA)	Claims 1-16	YES
	Claims	NO

2. Citations and explanations:

The following documents identified in the International Search Report have been considered for the purposes of this report:

- D1 JP 9-79032 A (CALSONIC CORP)
- D2 GB 2334305 A (FORD GLOBAL TECHNOLOGIES, INC.)
- D3 WO 2002/068807 A1 (MITSUBISHI JIDOSHA KOGYO KABUSHIKI KAISHA)
- D4 US 4727796 A (DERKACH)
- D5 US 5355673 A (STERLING et al)

Novelty (N) and Inventive Step- Claims 1, 11-16

The invention as defined by claims 1, 11-16 is not novel in light of the disclosure in D1 – D5, for example, D2 provides a pressure regulating valve which is deflected by the mass flow of exhaust gases and consequently will raise the temperature of the exhaust gases and ultimately the catalytic converter, re page 4 line 11- page 5 line 2.

As all the features are disclosed, the invention as claimed lacks novelty and hence an inventive step.

Attention is also drawn to Box VI regarding the novelty aspects of claims 1-3.

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Box No. VI Certain documents cited

1. Certain published documents (Rules 43bis.1 and 70.10)

<u>Application No.</u> <u>Patent No</u>	<u>Publication date</u> <u>(day/month/year)</u>	<u>Filing date</u> <u>(day/month/year)</u>	<u>Priority date (valid claim)</u> <u>(day/month/year)</u>
P,X US 6737027 B1	18 May 2004	9 September 1999	9 September 1999

Novelty & Inventive Step Claims 1-3

US 6737027 discloses a converter with end rings 30 including discs with apertures (figures 2 and 3) and also column 2 lines 50-60

2. Non-written disclosures (Rules 43bis.1 and 70.9)

<u>Kind of non-written disclosure</u>	<u>Date of non-written disclosure</u> <u>(day/month/year)</u>	<u>Date of written disclosure</u> <u>referring to non-written disclosure</u> <u>(day/month/year)</u>
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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

1. Claim 1 is not supported by the description in that it is considered to be very broad in scope as it purports to claim all devices that will affect flow or disturb the laminar flow of exhaust gases and will include within its scope a silencer or exhaust pipe extensions or weather flap valves as these will add a positive pressure to the outlet exhaust system and hence delay the time for exhaust gases to exit from the engine and thus improve the transfer of heat from the exhaust gases to the catalytic converter.
2. Claim 2 is unclear with regard to "to improve heat absorption" line 10 as it is indeterminate if the device or the catalytic converter is being referred to. Note that in claim 1, it is the catalytic converter which is being heated, also in the second invention, claims 11-16, the device is such the catalytic converter is being heated and on pages 3 line 10 – page 4, it is the device per se which increases in temperature.